600-253-4AD01



Analog-input-module, RTD, 16 Bit

2 / 4x R

- Measuring ranges: 150 ohms, 300 ohms, 600 ohms, 3,000 ohms, 6,000 ohms, Pt100, Pt1000, Ni100, Ni1000, LG-Ni1000, individually configurable for each channel
- Can accommodate 2/3/4-wire sensors
- Measurement resolution: 15 bits + sign
- Diagnostic messages
- Wire break detection
- A bi-color LED (blue/red) indicates the module operating status and any malfunctions
- Can accommodate 2/3/4-wire sensors
- Limit value alarms for each channel
- 2/4 inputs for measuring resistance, electrically isolated from the backplane bus
- 4 process input words

Info

Analog input modules for the modular fieldbus IO system TB20. Note: Individual modules cannot be combined with IO systems from other manufacturers. The scope of delivery already includes the appropriate front connector for the cabling and a base module. The module has 2 to 4 analog inputs for RTD resistance measurements, depending on whether the wiring is 2 / 3 / 4 wire. Parameters for the module Diagnostic alarm: On | OffOverflow/underflow diagnosis: On | OffRepresentation values: SIMATIC* S7 | SIMATIC* S5Temperature unit: Celsius x 10 | Fahrenheit x 10 | Kelvin x 10 Parameters for each channel Wire break detection: On | OffInterference frequency suppression: None | 10 Hz | 50 Hz | 60 Hz | 400 HzMeasuring ranges: 150 ohms / 300 ohms / 600 ohms / 3000 ohms / 6000 ohms / PT100 / PT1000 / Ni100 / Ni1000 / LGNi1000Sensor type: Disabled | 2-wire | 3-wire (channel 0 only) | 4-wire (channel 0 only)Limit value alarms enabled: On | OffUpper/lower limit: 16 bit analog value (±27648) * SIMATIC is a registered trademark of Siemens AG.

Technical data

General information	
Order number	600-253-4AD01
Article name	AI 2/4x R, RTD, 16 bit, 2/3/4 wire
Scope of delivery	AI 2/4x R, RTD, 16 bit, 2/3/4 wire
Dimensions (DxWxH)	110 x 14 x 73 mm
Weight	Approx. 70 g
Number of inputs	2/4
Internal	Max. 140 mA
Power dissipation	Max. 1 W
Parameter configuration length	26 bytes
General error indicator	Red LED
Hot-swap capable	Yes
Electrical isolation	
from the backplane bus	Yes
Between the channels	No
Measuring	
Measuring ranges	150 ohms,
Measuring method	Integration
Measurement resolution	15 bits + sign
Interference frequency suppression	None | 10 Hz | 50 Hz | 60 Hz | 400 Hz
Refresh rate / conversion rate	Number of active channels x conversion time +16 ms for wire break detection for each channel when activated.
Diagnoses	Upper measuring range limit exceeded (overflow), lower measuring range limit fallen below (underflow), wire break, parameter assignment error
Process alarms	Upper and lower limit per channel
Error limits	
Operational error limit in the entire temperature range	±0.5 % relative to the nominal range
Basic error limit at 25 °C	±0.3 % relative to the nominal range
Temperature error	±0.005 %/K relative to the nominal range
Linearity error	±0.05 %/K relative to the nominal range
Repeating accuracy in steady state at 25 °C	±0.05 %/K relative to the nominal range
Ambient conditions	
Ambient temperature	0 °C ... +60 °C
Transport and storage temperature	-20 °C ... +80 °C
Relative air humidity	95 % r H without condensation
Protection rating	IP 20
Certifications	CE, UL
UL	
Surrounding Air Temperature	0 °C ... +60°C
Pollution degree	2
CE	
Noise immunity	DIN EN 61000-6-2 "EMC Immunity"
Interference emission	DIN EN 61000-6-4 "EMC Emission"
Vibration and shock resistance	DIN EN 60068-2-6:2008 „Vibration", DIN EN 60068-2-27:2010 „Shock"